UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/544,283	04/06/2000	Toshiaki Sakaguchi	ASA-873	8159

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ART UNIT	PAPER NUMBER
2121	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	09/544,283	SAKAGUCHI ET AL.
	Examiner	Art Unit
	Thomas K Pham	2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _02 January 2004_ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-11_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-11_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Notice to Applicants

1.   This action is in response to Request for Continued Examination (RCE) filed on 1/2/2004

2.   Claims 1-11 are pending.

DETAILED ACTION

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

4.   Claims 1-3, 5 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Smirnov

et al. U.S. Patent No. 6,321,133 (hereinafter Smirnov).

Regarding claim 1

Smirnov teaches

a method for managing a plurality of actual execution workflows, each thereof for executing a

flow of work on the basis of a virtual workflow for monitoring the plurality of actual execution

workflows (col. 12 lines 10-12, "Model 130 may be … it represents."), the actual execution

workflows and the virtual workflow each including a plurality of nodes, respectively, comprising

the steps of:

- Linking at least one process node of each of the actual execution workflows with a node

  of the virtual workflow (col. 7 lines 8-17, "Regardless of … production plans."), a

  process state of the process node thus linked being permitted to be disclosed to a user of

  another actual execution workflow (col. 8 lines 11-16, "each task node represents … to

  the following state");

- specifying a node of the virtual workflow (col. 7 lines 14-17, "Within the virtual … the

  task node.");

- acquiring a node of the actual execution workflow linked with the node thus specified

  (col. 7 lines 35-42, "During processing of real … in the model 10."); and

- outputting a progress state of the acquired node as a progress state of the specified node

  of the virtual workflow (col. 8 lines 45-65, "FIG. 2 presents … alternative processes.").

Regarding claim 2

Smirnov teaches

- setting a user's privilege of operation at each node of the virtual workflow (col. 12 lines

  12-16, "as various operators … model 130 is updated."); and

- registering the user's privilege of operation thus set in a virtual workflow definition for

  defining the virtual workflow (col. 9 lines 28-31, "FIG. 4C illustrates ... printing

  machines.").

Regarding claim 3

Smirnov teaches

- determining an actual execution workflow definition for defining the actual execution

  workflows by using an attribute of a virtual workflow definition for defining the virtual

  workflow (col. 10 lines 1-15, "Although model 20 ... in real time."); and

- inputting execution information of the actual execution workflow by using the actual

  execution workflows definition thus determined (col. 11 lines 52-55, "Note that the ...

  input/output system.").

Regarding claim 5

Smirnov teaches there are a plurality of virtual workflow definitions for defining the virtual

workflow, the method further comprising the steps of:

- inputting information for selecting virtual workflow definition (col. 11 lines 52-55, "Note

  that the ... input/output system."); and

- determining a virtual workflow definition on the basis of the input information (col. 4

  lines 16-21, "generating the workflows ... generated accordingly.").

Regarding claim 11

Smirnov teaches the steps of:

- if a privilege of reference to the acquired node is not permitted to a user requesting the

  progress state of the specified node, searching the nodes of the actual execution

workflows for a previous node closest to the acquired node and having a privilege of

reference permitted to the user (col. 7 lines 35-42, "During processing ... in the model

10."); and

- outputting a progress state of the previous node as a progress state of the specified node

   of the virtual workflow (col. 8 lines 45-65, "FIG. 2 presents ... alternative processes.").

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   Claims 4 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Smirnov in view of Cheng U.S. Patent No. 6,067,548.

Regarding claim 4

Smirnov teaches a virtual workflow managing system for managing a plurality of actual

execution workflows, each thereof for executing a flow of work, accessing an actual execution

workflow definition for defining the actual execution workflow and a virtual workflow definition

for defining a virtual workflow for monitoring the actual execution workflows, the actual

execution workflows and the virtual workflow including a plurality of nodes, respectively, but

does not teach a storage unit for storing the actual execution workflow definition containing an

ID of the actual execution workflows and an ID of each of the nodes contained in the actual

execution workflow; a storage unit for storing virtual workflow definition containing an ID of

the virtual workflow, an ID of each of the nodes contained in the virtual workflow and access

privilege information given to a user using the virtual workflow definition at each node of the

virtual workflow; and a workflow link definition storage unit for storing an ID of a link linking

an ID of a node of the virtual workflow with an ID of a corresponding node selected from the

actual execution workflows. However, Cheng teaches a storage unit for storing the workflow

definition containing an security ID of the workflow and an ID of each of the nodes contained in

the workflow (col. 4 lines 21-34, "The present ... linking means."); and a workflow link

definition storage unit for storing an ID of a link linking an ID of a node of the virtual workflow

with an ID of a corresponding node selected from the actual execution workflows (col. 4 lines

40-48, "The utility ... virtual linking means."). Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to incorporate the storage unit of

Cheng with the workflow system of Smirnov because it would provide for storing the workflow

definition and security ID in a secured database in order to collaborate software for

authentication, authorization and dynamic job assignment.

Regarding claim 6

Smirnov teaches a method for managing a plurality of actual execution workflows, each thereof

for executing a flow of work, on the basis of a virtual workflow for monitoring the plurality of

actual execution workflows, the actual execution workflows and the virtual workflow each

including a plurality of nodes, the method comprising the steps of: searching a node of the actual

execution workflows corresponding to a node of the virtual workflow specified by the client,

based on the workflow link definition (col. 7 lines 35-43, "During processing ... in the model

10."); and outputting a progress state of the searched node of the actual execution workflows as a

progress state of the specified node of the virtual workflow to the client (col. 8 line 45-65, "FIG.

2 presents ... alternative processes.") but does not teach a workflow system having a client and a

server, holding a virtual workflow definition for defining nodes of the virtual workflow

according to purpose of use by the client, an actual execution, workflow definition for defining

processing nodes of the actual execution workflows and a workflow link definition for linking

the virtual workflow definition of nodes of the virtual workflow with the actual workflow

definitions of selected nodes of the actual execution workflows, on the basis of an indication

given from the client. However, Cheng teaches a workflow system having a client and a server

(col. 11 lines 59-61, "Multiple servers ... within a domain."), holding a virtual workflow

definition for defining nodes of the virtual workflow according to purpose of use by the client, an

actual execution workflow definition for defining processing nodes of the actual execution

workflows and a workflow link definition for linking the virtual workflow definition of nodes of

the virtual workflow with the actual workflow definitions of selected nodes of the actual

execution workflows, on the basis of an indication given from the client (col. 11 lines 24-42,

"The database ... database 152."). Therefore, it would have been obvious to one of ordinary skill

in the art at the time the invention was made to incorporate the method of Cheng with the

workflow system of Smirnov because it would provide for storing the workflow definition and

security ID in a secured database in order to collaborate software for authentication,

authorization and dynamic job assignment.

Regarding claim 7

Smirnov teaches a server for managing a plurality of actual execution workflows, each thereof

for executing a flow of work, on the basis of a virtual workflow for monitoring the actual

execution workflow, the actual execution workflows and the virtual workflow each including a

plurality of nodes, the server comprising: a processing unit for searching a node of the actual

execution workflows corresponding to a node of the virtual workflow specified by the client,

based on the workflow link definition (col. 7 lines 35-43, "During processing ... in the model

10."); and a processing unit for outputting a progress state of the searched node of the actual

execution workflows as a progress state of the specified node of the virtual workflow to the

client (col. 8 line 45-65, "FIG. 2 presents ... alternative processes.") but does not teach a system

having a client and a server, an information storage unit for storing a virtual workflow definition

for defining nodes of the virtual workflow according to a purpose of use by the client, an actual

workflow definition for defining processing nodes of the actual execution workflows and a

workflow link definition for linking the virtual workflow definition of nodes of the virtual

workflow with the, actual workflow definition of selected nodes of the actual execution

workflows. However, Cheng teaches a system having a client and a server (col. 11 lines 59-61,

"Multiple servers ... within a domain."), an information storage unit for storing a virtual

workflow definition for defining nodes of the virtual workflow according to a purpose of use by

the client, an actual workflow definition for defining processing nodes of the actual execution

workflows and a workflow link definition for linking the virtual workflow definition of nodes of

the virtual workflow with the, actual workflow definition of selected nodes of the actual

execution workflows (col. 7 lines 54-66, "The present ... class definition."). Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made to

incorporate the server of Cheng with the workflow system of Smirnov because it would provide

for storing the workflow definition and security ID in a secured database in order to collaborate

software for authentication, authorization and dynamic job assignment.

Regarding claim 8

Smirnov teaches in a storage medium readable by a computer for storing a program of a method

for managing a plurality of actual execution workflows, each thereof for executing a flow of

work, on the basis of a virtual workflow for monitoring the plurality of actual execution

workflows, the actual execution workflows and the virtual workflow including a plurality of

nodes, respectively, the method comprising the steps of: searching a node of the actual execution

workflows corresponding to a node of the virtual workflow specified by the client, based on the

workflow kink definition (col. 7 lines 35-43, "During processing ... in the model 10."); and

outputting a progress state of the searched node of the actual execution workflows as a progress

state of the specified node of the virtual workflow to the client (col. 8 line 45-65, "FIG. 2

presents ... alternative processes.") but does not teach a workflow system having a client and the

server, holding a virtual workflow definition for defining nodes of the virtual workflow

according to a purpose of use by the client, an actual execution workflow definition for defining

processing nodes of the actual execution workflows and a workflow link definition for linking

the virtual workflow definition of nodes of the virtual workflow with the actual workflow

definition of selected nodes of the actual execution workflows, based on an indication given

from the client. However, Cheng teaches a workflow system having a client and the server (col.

11 lines 59-61, "Multiple servers ... within a domain."), holding a virtual workflow definition

for defining nodes of the virtual workflow according to a purpose of use by the client, an actual

execution workflow definition for defining processing nodes of the actual execution workflows

and a workflow link definition for linking the virtual workflow definition of nodes of the virtual

workflow with the actual workflow definition of selected nodes of the actual execution

workflows, based on an indication given from the client (col. 7 lines 54-66, "The present ... class

definition."). Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to incorporate the server of Cheng with the workflow system of Smirnov

because it would provide for storing the workflow definition and security ID in a secured

database in order to collaborate software for authentication, authorization and dynamic job

assignment.

Regarding claim 9

Smirnov teaches virtual and actual workflow definition but does not teach the method of holding

information about a type of a privilege of operation by the client to the actual workflow

definition at each node of the virtual workflow, the type being at least one privilege selected

from a display privilege, a reference privilege and an input privilege. However, Cheng teaches

the workflow definition holding information about a privilege of operation by the client is

defined by the administrator for different roles to control the process (col. 6 lines 17-25, "Most

workflow ... task authorization."). Therefore, it would have been obvious to one of ordinary skill

in the art at the time the invention was made to incorporate the server of Cheng with the

workflow system of Smirnov because it would provide for storing the roles of different

privileges into the workflow definition as defined by the administrator in order to control

different task assignment and task authorization.

Regarding claim 10

Smirnov teaches each of the nodes contained in the virtual workflow definition is linked with a

node selected from a plurality of actual workflow definitions (col. 7 lines 35-43, "During

processing ... the model 10.").

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should
be directed to examiner *Thomas Pham*; whose telephone number is (703) 305-7587 and fax number is
(703) 746-8874, Monday-Thursday and every other Friday from 7:30AM- 5:00PM EST or contact
Supervisor *Mr. Anil Khatri* at *(703) 305-0282.*

Any response to this office action should be mailed to: **Director of Patents and
Trademarks Washington, D.C. 20231**, or **Hand-delivered** responses should be brought to
**Crystal Park II, 2121 Crystal Drive Arlington, Virginia, (Receptionist located on the 4th
floor),** or fax to the **official fax number (703) 872- 9306.**

Any inquiry of a general nature or relating to the status of this application should be directed to
the Group receptionist whose telephone number is (703) 305-3900.

Thomas Pham
Patent Examiner

TP

January 26, 2004

LEO PICARD
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